

REMARKS

Claims 1-11 remain in the application, the claims having been editorially amended. Reconsideration of the application and allowance of all claims are respectfully requested in view of the above amendments and the following remarks.

The amendments to claim 1 are believed to resolve the Section 112 and Section 101 issues raised with respect to all claims except claim 9, and those rejections are believed overcome. As to claim 9, if the recited structural limitations are not given any patentable weight in a method claim, that does not render the claim indefinite, and the Section 112 rejection for indefiniteness is traversed on that basis. In any event, claim 9 has been amended to recite method steps which further limit the parent claim, and the rejection is overcome.

The prior art rejections are respectfully traversed.

US Patent 4,161,419 (Alia) discloses a method of producing a polyethylene based coating on a conductor by extrusion and cross-linking the coating afterwards. Pellets of polyethylene and pellets of a mixture of polyethylene, EPR, filler material and other material are filled into the hopper of an extruder, in which the pellets are mixed, molten and the melt is applied to the conductor. The layer is then heated in a steam tube where crosslinking takes place. There is no indication of a screw having a bore.

US Patent 4,569,595 (Maillefer) describes an extruder with a cylinder 1, and a screw 4. The upstream part A of the cylinder is cooled (see circulation ducts 6) and the downstream part B is heated (see elements 14, which appear to be heating elements).

US Patent 4,569,595 (Piccolo, Sr.) does not disclose a screw with a longitudinal bore. There is no disclosure that the screw is heated in the intake zone up to a low limited temperature and heated in the delivery zone to a higher but also limited temperature.

Object of Piccolo is a mixer for plastic material, with a rotor having a bore. In the mixer the plastic material is molten and the molten plastic is discharged into an extruder (column 2, lines 53 - 63). The screw of the mixer has a longitudinal bore. A central coolant feed tube conveys coolant from an entrance into the bore to a discharge end.

Piccolo does not disclose an extruder with a screw having a longitudinal bore. It does not disclose heating a mixture of plastic material.

As none of the documents teaches heating a mixture of plastic material with a screw, which heats the mixture to a low temperature in the intake zone and makes the mixture the right temperature in the delivery zone, it is respectfully submitted that the subject matter of claim 1 could not result from any obvious combination of the teachings of these references. Even if the references were combined in the manner suggested by the examiner, the result would be an extruder having a screw with successive zones and the temperature maintained below the melting point of the feed material in the first zone. Whatever is generally taught by Maillefer and Piccolo as to the temperatures downstream of the first zone, neither of these references teaches that when extruding a mixture of materials the temperature should be maintained between the melting temperature ranges of the two materials, as is recited in claim 1.

As to the rejections relying on Danekas et al '777 and Danekas et al '411 as the primary references, these references teach extruding of mixtures but both references are silent as to the

maintaining of a low temperature in a first zone and then in a second zone maintaining the temperature at a higher temperature between the melting point ranges of two mixture components. Accordingly, these rejections are also respectfully traversed.

With regard finally to the obviousness-type double patenting rejections, amongst all of the references cited by the examiner, there is no teaching of two-zone temperature control where the temperature is below the melting point of the lowest melting point material in the first zone and is between the melting points of the two materials in the second zone. The examiner has glossed over this by characterizing Piccolo as teaching that the temperature should be “optimized” but optimized temperature would not have taught the artisan to maintain a temperature between melting temperatures of the components. That teaching is only available through hindsight after reviewing the present application.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
USSN 10/671,678

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

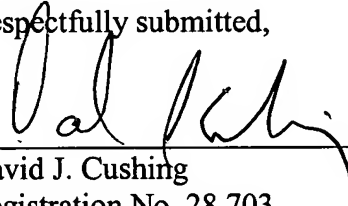
SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Respectfully submitted,



David J. Cushing
Registration No. 28,703

Date: November 14, 2005